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CHILTON'S
FEBRUARY 1989

AUTOMOTIVE INDUSTRIES

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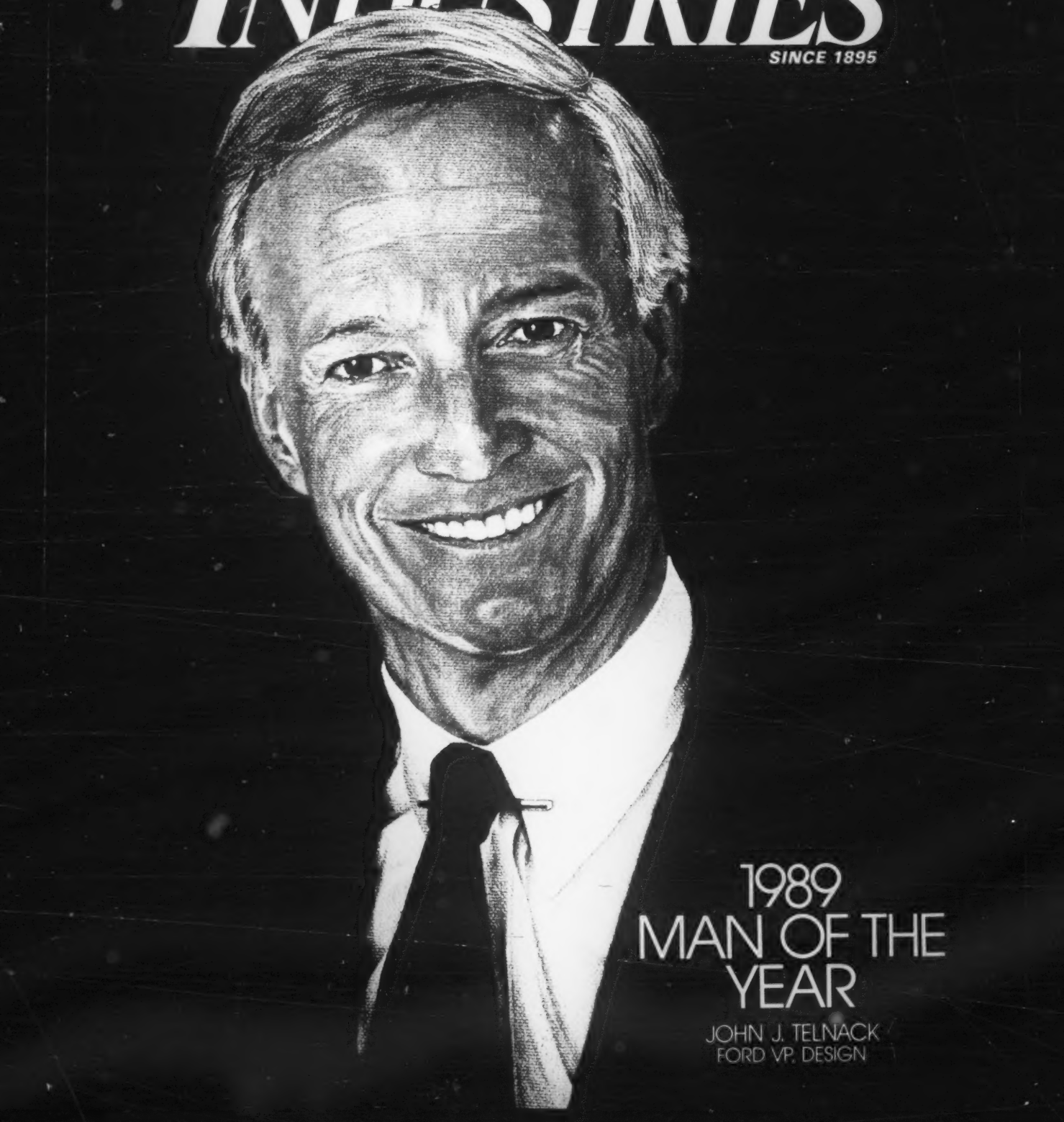

1989 MAN OF THE YEAR

JOHN J. TELNACK
FORD VP, DESIGN

FEBRUARY 1989 VOLUME 169, No.2

CHILTON'S AUTOMOTIVE INDUSTRIES SINCE 1896

Cover: With Jack Telnack leading the way, Ford's styling revolution continues to shake the industry. Read about our 1989 Man of the Year starting on page 52.

Cover art by Randy Hamblin.

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Jack Telnack, Ford's VP of Design.

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ONE OF THE ***ABC PUBLISHING COMPANIES****, A PART OF* ***CAPITAL CITIES/ABC, INC.***

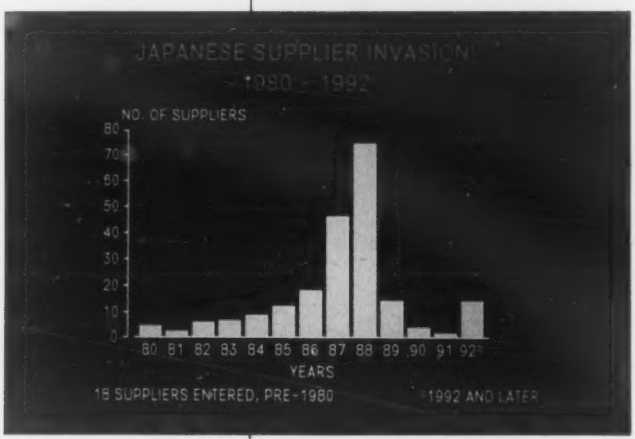
TORA, TORA, TORA!

232 Japanese supplier plants are gunning for your business.

by JOSEPH M. CALLAHAN

While the attention of the American media, public and government is focused on the six Japanese automotive assembly plants located in the US, a much more significant "invasion" is coming from Japanese auto suppliers. Many of these are owned or partly owned by the Japanese automakers.

The Japanese government has informed the US Commerce Department that 232 Japanese auto supplier plants are either now in production in the US or soon will be. And more are on the way.



Prior to 1980, only 18 Japanese suppliers were operating in America. But the number of new facilities starting production has increased every year since 1981. These start-ups really accelerated in the past two years, with 46 new operations starting in 1987 and a whopping 74 plants gearing up in 1988.

A list of those 232 plants follows, including the name of each parent company, the location of each plant, the products produced or to be produced, the customers, number of employees and year of production start-up. In some cases, all of this data was not available for each plant.

Included in the list are 26 joint-ventures, 36 proposed joint-ventures, 16 contemplated plants and 43 pending plants. The facilities that are pending and contemplated will undoubtedly materialize, because the Japanese government has announced that they are coming.

The Japanese government has agreed to supply this information to the US as the result of the MOSS (Market Oriented Sector Specific) trade talks between the US and Japan. MOSS was intended to increase the access of American companies to the Japanese market.

These talks have been almost total failures, except that the Japanese agreed to supply this data about their companies moving into the US automotive and numerous other American industries.

The influx of Japanese suppliers into the US supplier industry will undoubtedly be extremely successful. These facilities will surely demonstrate the admitted Japanese ability to produce both quality and competitively-priced parts.

They will also benefit from the plethora of concessions granted by the various states to new plants locating in those states, as well as other advantages, such as relatively low pension fund costs and the opportunity to use the latest technology.

In addition, Congresswoman Marcy Kaptur (D-OH), a leader in the fight to get fair treatment for American automotive suppliers, has charged that the Japanese companies have been assisted by various US government officials and that an "integrity" issue is involved.

While these 232 Japanese suppliers are ostensibly coming to the US to provide parts for the Japanese transplants, they'll certainly become major suppliers to the US Big Three. Eighty-five of these firms – a solid 36% – already have sourcing contracts with GM, Ford or Chrysler. Some have contracts with all three. AI

JAPANESE SUPPLIERS

COMPANY	PARENT/LOCATION	PRODUCT	CUSTOMER	EMPLOYEES	STARTUP
AP St. Marys #	Hitachi, St. Marys, OH	Aluminum Wheels	N/A	25	1988
AP Technoglass +	Asahi Glass/PPG Ind., Belle-fontaine, OH	Auto Safety Glass	Honda	150	1985
ARCO/JSP Co. +	ARCO/Jap.Styren/ Mitsubishi Gas, Monaca, PA	Shock Absorp. Mat.	Nissan/Mazda/ Ford/GM	8	1986
ATC	Marubeni/Ube, Nashville, TN	Plastic Compounds	Nissan	3	1986
ATR Wire & Cable	Tokyo Rope/ Mitsubishi/C.Itoh, Danville, KY	Steel Cord/Bead Wire	Goodyear/Goodrich	636	1981
Aeroquip Auto-motive, Inc.	Yokohama Aeroquip Co., Japan, Van Wert, OH	Hoses, Fuel Lines, Oil Cooler Lines, Couplings, Tube Connectors	N/A	75	1987
Aeroquip *	Yokohama Rubber, Van Wert, MI	Hoses	N/A	N/A	1987
Aisin	Aisin Seiki, Seymour, IN	Brake Systems	GM/Ford	N/A	1989
Aisin USA	Aisin Seiki, Seymour, IN	Stampings	Toyota	100	1985
Aisin USA *	Aisin Seiki, Seymour, IN	Stampings	Toyota	100	1988
Aisin USA, Inc.	Aisin Seiki, Japan, Indianapolis, IN	Automotive mldngs	Toyota	250	1988
Aisin #	Aisin Seiki, Seymour, IN	Brake Systems	GM/Ford	N/A	1989
Alcan Toyo America *	Alcan Powder & Pigment/Toyo Alum., Joliet	Aluminum	N/A	30	1988
Alcoa Fujikura Rubber +	Fujikura Gomi Kogyo/Alcoa, Pittsburgh, PA	Wiring Harnesses	Ford	N/A	1986
Allen Bradley TDK +	Magnetics TDK Ltd./Allen Bradley, Shawnee, OH	Ferrite Magnets	US/Japan. Mfg.	300	1987
Alpine Electronics Mfg.	Alpine Electronics Japan, Green-wood, IN	Audio equip.	Amer. Honda/BMW	100	1987
Alpine Electronics Mfg.	Alps Electric Japan, Torrance, CA	Audio Equipment	N/A	125	1978
Ambrake Corp.	Akebono Brake Ind., Japan, Elizabethtown, KY	Disc Drum brakes	Honda, GM	100	1988
Ambrake Corp. *	Akebono Brake, Elizabethown, KY	Disk/Drum brake	Toyota	400	1988
American Koyo	Koyo Seiko Bearing, Orange-burg, SC	Ball/Roller Bearings	Ford/Chrysler	200	1975
American NTN Bearing Mfg. Corp.	NTN Toyo Bearing, Bearing, Elgin/ Schiller Pk., IL	Ball/Roller Bearings	GM/Chrysler	120/79	82/79

(Continued on p.92)

JAPANESE SUPPLIERS

COMPANY	PARENT/LOCATION	PRODUCT	CUSTOMER	EMPLOYEES	STARTUP
American Shizuki	Shizuki Electronic Co., Japan, Ogallala, NE	File capacitors	GM/Ford/Chrysler	325	1942
American Yazaki Corp.	Yazaki of Japan, Canton, MI	Raw Components, Wiring Harness	Ford/Chrysler/ Nissan	200	1975
American Yazaki Corp.	Yazaki, El Paso, TX	Wiring Harnesses	Chrysler/Nissan	25	1984
Amtex Inc. +	Hayaski Telempu/ Masland, Manteca, CA	Floormats/Door Trim	NUMMI	50	1985
Arvin Sango, Inc. *	Sango/Arvin, Madison, IN	Mufflers	US Auto Co./Japan. Mfg.	195	1988
Askor Corp.	Union Sanyo, Japan, Peoria, IL	Oil, Air, Fuel Filters	N/A	3	1988
Asmo Co.	Asmo Co. Ltd., Japan, Battle Creek, MI	Wipers/Reser. tanks	Nippondenso	5	1987
Automotive Inc. *	Aeroquip Corp., Van Wert, MI	Hoses	N/A	N/A	1987
Azmo Co. Ltd. #	Azmo Co. Ltd., Statesville, NC	DC Motors	N/A	N/A	1989
Bando Mfg. #	Bando Chemical Ind., Bowling Green, Ky	Automotive belts	Toyota	40	1988
Bellenar Parts Ind.	Sanke Giken/ Tokyo Seat, Japan, Brussells Point, OH	Brake Lines, Door Sashes, Exhaust Sys., Catlyt. Conv.	American Honda	140	1985
Bellenar Parts Ind.	Sanke Giken/ Tokyo Seat, Japan,Marysville, OH	Seat Assemb./ Exhaust Sys.	American Honda	211	1982
Belletech +	Asahi Glass/ Takahashi, Bellefontaine, OH	Assembly Glass/ Trim	Honda	54	1986
Bendix-Jidosha Kiki *	Allied Bendix/ Jidosha Kiki, Gallatin, TN	Brake boosters	Japan./US Mfgs.	75	1987
Benteler Industries	Benteler Wisatechnik, W. Germ., Grand Rapids, MI	Sheet metal stamp/weld assembly	GM/Chrysler	150	1956
Bloomington Seat Co. *	Namha Press/ Douglas, Lomason, Normal, IL	Seats	Diamond Star	75	1988
Bridgestone USA	Bridgestone Ind. Ltd., LaVergne, TN	Truck/Bus Tires	Firestone/Aftmkt.	1100	1983
Bundy Int'l. *	Usui Int'l. Ind. Ltd./ Bundy, Bloomington, IL	Brake/Steel Tubing	Diamond-Star	50	1988
Bundy Int'l. +	Usui Int'l. Ltd./ Bundy, Cartersville, GA	Brake/Steel Fuel Tubing	Nissan	80	1984
Butler Polyset, Inc.	Guthrie Sanadian Inv. Ltd., Lenior, NC	Thermoplastics	Ford/GM	350	1980

(Continued on p.94)

JAPANESE SUPPLIERS

COMPANY	PARENT/LOCATION	PRODUCT	CUSTOMER	EMPLOYEES	STARTUP
CCT #	N/A, Sydney, OH	Plastic Dies	Honda	N/A	1987
CKR Ind., Inc. +	Kinugawa Rubber/ Chardon, Rubber Winchester, TN	Weatherstrip	Nissan	41	1982
CME Corp.	Mitsuba Electric Mfg. Co., Japan, Mt. Pleasant, MI	Wiper Sys./Power Window Motors	N/A	8	1988
California Steel	Kawasaki Steel/ Rios/Doce, Fontana, CA	Steel Parts	Auto Parts Inc./ Wheelrims	850	1984
Calsonic	Nihon Radiator, Irvine, CA	Air Conditioning	Nissan	224	1976
Calsonic Mfg. Corp.	Nihon Radiator, Shelbyville, TN	AC/Exhaust Sys.	Nissan	433	1983
Calsonic Yorozu	Nihon Radiator Yorozu, McMinn-ville, TN	Metal Stamping	Calsonic/Nissan	100	1987
Calsonic Yoruzu *	Nihon Radiator/ GM, Shelby-ville, TN	Stamped Parts	N/A	N/A	1988
Cast Forge +	Nippon Lt. Mtl./ Kelsey-Hayes, Howell, MI	Wheels/Trans-missions	Mazda	100	1982
Central Mfg. *	Chou Seiki/Toyoda Am/Crtl Motor Wl, Paris, KY	Wheels	Toyota/Nissan	50	1988
Central Michigan Electric *	Mitsuba Electric Mfg., Mt., Pleasant, MI	Windshield wiper sys.	N/A	N/A	1988
Clarion Corp. of of America	Clarion Co. Ltd., Japan, Walton, KY	Audio Equipment	Toyota	20	1988
Clarion Corp.	America Clarion Ind. Ind. Ltd., Nashville, TN	Audio Equipment	Chrysler/Nissan	N/A	1982
Clarion #	Clarion, Walton, KY	Car radios, stereos	Nissan	90	1987
Clevite-Bridgestone *	Bridgestone/ Clevite, Milan, OH	Rub. to Mtl. Prods.	Japa./U.S. Mfg.	12	1987
Color Composite	TechToyo Inc./ Mitsui Toatsu, Japan, Sidney, OH	Color conctrts/ Plastic comp.	Honda	16	1987
CoPar Int'l. #	Toyo Radiator/ Cltoh/Long (CA), Hopkinsville, KY	Copper Radiators	Japanese Mfg.	100	1989
Curtis Maruyasu +	Maruyasu/Curtis Prod., Tracy, CA	Fuel Line/Brakes	NUMMI	25	1985
Curtis-Maruyasu	Maruyasu Kogyo, Japan, Lebanon KY	Gas/brake line tub. assembly	Nissan, Ford	2400	1988
Curtis-Maruyasu *	Maruyasu/Curtis Lebanon, KY	Fabricated Tubing	Toyota	30	1988
Daikin Clutch USA #	Daikin Mfg., Van Buren Twp., MI	Clutch/Clutch covers	Mazda	80	1990

(Continued on p.97)

COMPANY	PARENT/LOCATION	PRODUCT	CUSTOMER	EMPLOYEES	STARTUP
Delta USA #	Delta Kogyo, Monroe, MI	Seats	Mazda	180	1988
Diamond-Star Motors	Mitsubishi Motors, Bloomington, IL	Cars	Diamond-Star	100	1988
Diesel Kiki =	N/A, Decatur, IN	Air Conditioning	(BorgWnr) N/A	N/A	1988
Dunlop Tire	Suritomo Rubber, Huntsville, AL	Auto Tires	Honda/Aftermarket	800	1986
Eagle Wings Ind.	Nippon Eagle Wing Wing Ind., Japan, Rantoul, IL	Underbody parts	Diamond-Star	N/A	1988
Enkei America #	Ebsgu Keigokin/ Mitsubishi, Columbus, IN	Aluminum Wheels	Ford/Chrysler/GM	70	1987
Enpac *	GNB Inc./Japan Storage Battery, Memphis, TN	Storage Batteries	US/Japanese Mfg.	175	1988
FEC Incorporated	Daiichi Dentsu, Japan, Madison Heights, MI	Elec. fastening sys.	Ford/GM	30	1983
Firestone *	Bridgestone/Japan, Japan, Chicago, IL	Tires	Japan./US Mfg.	50,000	1988
Fuji Koki America	Fuji Koki Co. Ltd. Dallas, TX,	A/C, Thermostats	Toyota/Honda	35	1982
Fujitsu Ten #	Fujitsu Ten Rushville, IN	Audio Components	N/A	50-75	1987
Fuso Light Alloys =	N/A	Die Cast Parts	Japan. Auto Mfg/US	N/A	1988
GECOM #	Mitsui Mining & Saltng., Greensburg, IN	Door locks/ handles	Honda	150	1987
General Seating of America *	NHK Spring/Lear Siglas, Lafayette, IN	Car Seats	Subaru/Isuzu	N/A	1988
Greenville Technology	Mariroku Co., Ltd, Japan, Greenville, OH	Plastic Inj. Molded Parts	Honda	86	1987
Greenville Technology Morirku *	Capitol Plastics Marysville, OH	Plastic Comp.	Honda	N/A	1987
Heartland Automotive #	Shigeru Ind. Ltd. Greencastle, IN	Interior parts	Japanese Mfg.	N/A	1989
Hi-Lex Corp.	Nippon Cable Systems Inc., Battle Creek, MI	Control Cables	Ford/Chrysler/ GM/Nissan	175	1978
Hi Flo	Toray Industries Japan, Northwood, OH	Int.Door Pan./ Pl. Mold	Mazda	25	N/A
Hisan	ITT Higbie, Japan, Findlay, OH	Brake Line Tubing	Nissan/Honda/ Mazda	20	1988
Hisan *	ITT Higbee/Sanoh Ind. Corp., Archford, OH	Brakes/coating/ binding	Honda/Nissan	N/A	1987

(Continued on p.98)

JAPANESE SUPPLIERS

COMPANY	PARENT/LOCATION	PRODUCT	CUSTOMER	EMPLOYEES	STARTUP
Hisan, Inc.	Sanah Industrial Co. Co. Ltd., Japan, Rochester, MI	Tubing	GM/Ford/Chrysler	135	1936
Hitachi Auto. Prod. (USA) Inc.	Hitachi Ltd., Japan Harrodsburg	Ignit. Cls. Elec. Auto Equip.	Ford/Chrysler/ GM/Nissan	80	1986
Hitachi Electric Wire #	Hitachi, New Albany, IN	Rubber hoses	Japan./US Mfg.	35-150	1988
Hitachi Magnetics Corp.	Hitachi Metals Ltd., Edmore, MI	Permanent Magnets	GM/Ford/Aftmkt.	400	1973
Honda All Lock *	Honda Corp./All Lock Corp., Selma, AL	Car Locks	Honda	N/A	1988
Honda USA #	Honda, Anna, OH	Engines	Honda	800	1988
Honda of America Mfg.	Honda Motor Co., Japan, Marysville, OH	Auto Assem./ Metal Stamp	Honda	3900	1982
I.I. Stanley #	Stanley/Kyokuto/ Stanley US, Battle Creek, MI	Auto. Elec.Comp.	Japanese Mfg.	N/A	1987
I/N Tek. *	Nippon Steel/ Inland Steel, South Bend, IN	Cold Rolled Steel	Japan./U.S. Mfg.	N/A	1990
INOAC #	Inous, Bardstown, KY	Exterior trim	N/A	91	1988
Ichikoh Mfg. #	Ichikoh Ltd., Shelbyville, KY	Automotive Lighting	Nissan	90	1988
Idemitsu Chemicals USA =	Idemitsu Petrochemicals, N/A	Compound Resins	GM/Ford	N/A	1988
Ikeda Interior Sys.	Ikeda Busan Co. Ltd., Mufreesboro, TN	Interior Parts	Japan./US Mfg. Nissan	30	1987
Ikeoa Bussan =	N/A	Seats/Interiors	Nissan/US Auto Co.	N/A	N/A
Inoac USA, Inc.	Inoue MTP Co. Ltd., Bardstown, KY	Exterior parts, trim, foam	N/A	91	1988
Isuzu Motors	Isuzu Motors, Japan, Patchoque, NY	Steering wheels	Big 3/Nissan/Mazda	250	1977
Izumo Corp.	Isumi Motors, Yaphank	Steering Wheels, Horns, Pad Assemb.	Ford/Chrys/Nissan/ Mazda/AMC	250	1979
Jideco #	Jidosha Denki, Kogyo Co. Ltd., Bardstown, KY	Wiper Mtrs/Cruise Control	Nissan	100	1987
KTH Parts Ind., Inc.	Takao Seisakusho/ Honda, Japan, St. Paris, OH	Mtl Stamp./Weld.	Honda	264	1985
KYB Industries #	Kayaba Industries Franklin, IN	Shock absorbers	US/Japan. Mfg.	70	1989
Kantus Corp.	Kanto Seiki, Lewisburg, TN	Plastic Inst. Pnls.	Nissan	150	1983
Kecy Products *	Homer Donaldson/ Kitsuda Engrg., Hudson, MI	Engine/seal/parts	Mazda/Honda	6-8	1988

(Continued on p.101)

COMPANY	PARENT/LOCATION	PRODUCT	CUSTOMER	EMPLOYEES	STARTUP
Kobelco of America, Inc. #	Kobe steel/Nissho Iwai/Shinsho, Seymour, IN	Steel Powder	Japan./US Mfg.	N/A	1989
Kokoku Rubber	Kokoku Ltd., Richmond, KY	Auto Components	Toyota	50	1988
Koyo Metal #	Koyo Metal Co. Ltd., Ltd. Battle Creek, MI	Extruded Alum. Parts	N/A	N/A	N/A
Koyo Seiko =	N/A	Steering Systems	N/A	N/A	N/A
Kux Mfg.	Mitsubishi Detroit, MI	Pinstripping/ Lettering	GM/Ford/Chrysler/ Toyota	3500	1985
LS Electro Galvanizing +	Sumitomo Metal/LTV Cleveland, OH	Galvanized Steel Sheet	US/Foreign Mfg.	75	1986
Le Blond Makino Machine	Makino Milling Co., Ltd., Japan, Cincinnati, OH	Tools, flexible aft. syst.	American Honda/ GM	455	1981
Lenawee Stamping #	Kuroihi Tekko/Mura Mura, Kogyo Lenawee, MI	Stampings	Mazda/Ford	N/A	1989
MBL #	Mitsubishi Belt, Ottawa, IL	Drive belts	D-S/Toyota	125	1988
MTM Bower Co.	MTM Toyo Bearing Co., Japan, Macomb, IL	Bearings	Big 3	500	1986
Maruyasu Kogyo =	N/A, Kentucky	Steel tubing	Toyota	N/A	N/A
Mason Melco Mfg.	Mitsubishi Electric, Japan, Ohio	Generators and Alternators	N/A	60	1988
Matsushita Comm. #	Matsushita Comm., Peachtree, GA	Car Audios	Mazda	30	1987
Mazda Motor Corp.	Mazda Motor Mfg. Corp., Japan, Flat Rock, MI	Cars	Mazda (MX-6) Ford (Probe)	1400	1987
Mid-West Mold	Tatematsu Mold, Japan, Batavia, OH	Plastic injec. molds	N/A	30	N/A
Mitsubishi Air Conditioning Div.	Mitsubishi, Los Angeles, CA	Air Conditioning	Diamond-Star	N/A	1987
Mitsubishi Belting Co. Ltd. Japan	Mitsubishi Belting Co., Ottawa, IL	Belts, hoses	N/A	110	1988
Mitsubishi Electric Co. #	Mitsubishi Electric, Mason, OH	Electrical Parts	Japan./US Mfg.	200	1988
Mitsubishi Heavy Ind.	Mitsubishi Heavy Ind., Japan, Rancho Dosinquez, CA	A/C Sys. Subassemblies	Mitsubishi/Chrysler	10	1987
Mitsubishi Metals #	Mitsubishi Metals, Columbus, IN	Powdered metal eng. parts	Japan./US Mfg.	N/A	1989
Mitsubishi Reactive +	Mitsubishi/Reactive Metals, West Pittsburg, PA	Magnets	GM	5	1986
Miyachi Denshi #	Miyachi Denshi, Columbus, OH	Automotive Welding	N/A	N/A	1988

(Continued on p.102)

JAPANESE SUPPLIERS

COMPANY	PARENT/LOCATION	PRODUCT	CUSTOMER	EMPLOYEES	STARTUP
Molton-BRC *	Molten Japan/BRC Circa Fort Wayne, IN	Rubber Molded Parts	Mazda	N/A	1988
Morton Yokohama *	Yokohama Rubber/Morton Thiokol, Ringwood, CA	Windshield Sealants	Japanese Mfg.	10	1988
Musashi USA #	Musashi Seimitsu, Battle Creek, MI	Suspension/ Steering	Ford	40	1987
N/A =	Fuji Heavy Industries, Tippecanoe Ct., IN	Engines	Subaru/Isuzu	N/A	1988
N/A =	Japan Storage Battery GNB Inc., Memphis, TN	Batteries	Orig./ Replace. Market	N/A	1989
N/A =	Mitsubishi/Exxon, Baytown, TX	Plastic Based Comp. Material	Japan. Auto Mfg./US	N/A	N/A
N/A =	Nihon Yoruzo, Tennessee	Pressed Parts	Nissan	N/A	1987
N/A =	Tsuchiya Schleigel, Bloomington, IN	Weather Stripping	N/A	N/A	1988
N/A =	Yokohama Tire/ Toyo/Continental Genl, Mt. Vernon, IL	Tires	N/A	N/A	1989
NDK, Inc.	Nippon Oil Seal Co., Ltd., Japan La Grange, GA	Oil Seals, Mech. Seals	Big 3/Navistar	326	1980
NHK Associated Spring	NHK Spring Co. Ltd., Bowling Green, KY	Coil springs for suspens.	Nissan	26	1987
NKC America Inc.	Nakanish Metal Works Co., Ltd., Memphis, TN	Conveyor Equip.	GM/Chrysler/ Nissan	50	1984
NKC America, Inc.	Nakanishi Metal Works, Japan, Memphis, TN	Conveyor equip./ Transfer equip.	Nissan/Chrysler	100	1980
NOK	Nippon Oil Seal LaGrange/Braselton	Oil & Mech. Seals	Ford/GM/Chrys/ Navistar	N/A	1980
NSK	Nippon Seiko K.K., Clarinda, IA	Ball Bearings	GM/Ford/Chrysler	210	1976
NSK Corporation	Nippon Seiko K.K., Japan, Ann Arbor, MI	Bearings	Ford/Chrysler	302	N/A
NTN Bower +	NTN of Japan/ Federal Mogul, Hamilton, AL	Bearings/Heavy Duty Veh.	US/Japan. Mfg.	400	1985
National Steel 50	N/A, Canton Township, MI	Blanks/Stamping Oper.	GM	N/A	1988
National Steel, Great Lakes Div. +	Nippon Kokan/ National City, Detroit, MI	Cold/Hot Steel	US Mfg.	4500	1984

(Continued on p.105)

COMPANY	PARENT/LOCATION	PRODUCT	CUSTOMER	EMPLOYEES	STARTUP
National Steel, Granite City Div. +	Nippon Kokan/ National Steel, Granite City, IL	Cold/Hot Steel, Coated Sheet	US Mfg.	3422	1984
National Steel, Midwest Portage Div. +	Nippon Kokan/ National Steel, Portage, IN	Cold/Hot Steel	US Mfg.	1700	1984
Neaton Automotive Products	Nihon Plastics, Eaton, OH	Steering Wheels	Honda/Nissan	168	1986
New Sabina Industries	Nippon Seiki, Japan, Japan, Sabina, OH	Instru. Panels, Speedometers	Honda	80	1987
Nifco *	Nifco Hillard, OH	Rubber Parts, Radiator Hoses	Honda	100	1988
Nihon Sheet Glass =	N/A, Illinois	Soundproofing	N/A	N/A	1988
Nippon Pigment USA	Nippon Pigment Co. Co., Ltd., Houston, TX	Color Compounds	N/A	16	1985
Nippon Sheet Glass =	N/A, Kentucky	Automotive Glass	N/A	N/A	1988
Nippondenso	Nippondenso, Long Beach, CA	AC, Alternators	Toyota	250	1971
Nippondenso	Nippondenso Ltd., Marysville, TN	Alternators/Starters	Nissan	550	1991
Nippondenso, 2 fac. =	N/A, Midwest	Elect. Comp./ Air Compr.	N/A	N/A	1988
Nippondenso Mfg. USA Inc.	Nippondenso Co. Ltd. of Japan, Battle Creek, MI	Condensers/ Evaporators	Toyota/Mazda/ Honda	400	1986
Nishikawa-Standard *	Nishikawa/ Standard Products, Topeka, IN	Sponge Rubber	Japanese Auto Co. in US	200	1987
Nissan	Nissan, Smyrna, TN	Engines	Nissan	N/A	1991
North American Lighting, Inc.	Koito Mfg./ Ichikoind/ Wstflsch Mtl. Flora, IL	Automotive Lighting	N/A	N/A	1983
Nova Steel Processing +	C. Itoh/Armco Steel, Steel, Tipp City, OH	Processing Steel	GM/Ford	45	1986
Ogihara America Corp. #	Ogihara Iron Works, Works, Howell, MI	Auto parts, stamping	Ford/GM/ Chrysler/Mazda	50	1987
Oiles America #	Oiles Industry, Plymouth Twp, MI	Auto Parts Machinery parts	Ford/GM/Chrysler	8	N/A
Omega Tube Conduit Co. #	Sumitomo Metal Ind. Ltd., Little Rock, AR	Steel pipe stabilizers	N/A	N/A	1987
Ondo Kosaku-/ shu Yamamoto Kozail	M-Tex Kasai Kogyo Kogyo Co., Ltd., Manchester, TN	Door Trim	Nissan/Honda	80	1987
Optec Dai-ichi Denko #	Optec Baitich Denko, Mexico	Magnetic Wire	Ford/Chrys/ GM/Toyota	N/A	1987

(Continued on p.107)

COMPANY	PARENT/LOCATION	PRODUCT	CUSTOMER	EMPLOYEES	STARTUP
Ortech *	Yuhshin/Orschein Indiania/Missouri	Elect. Auto Parts	Japan./US Mfg.	250	1986
Penstone +	Ishizaki Honten/ Nippon, St. Gl., Ford, Rockwood, MI	Automotive Glass	Japan./US Mfg.	100	1987
Pioneer Ind. Components Inc.	Pioneer Electronic, Springboro, OH	Auto. Elect. Audio Equip.	N/A	50	1986
Pop Industries +	Fujikura Ltd./Alcoa Ripley and Houston, MS	Automobile Wire Harnesses	N/A	N/A	1986
Precision Seals Co.	IFI Int'l., SA Luxenbourg, Castonia, NC	Oil Seals	N/A	350	1966
Pro Coil Corp. *	Marubisi Group, Canton Twp, MI	Blanks/Stamping Oper.	GM	50	1988
Recticel Foam Corp.	PRB, Belgium, Morristown, TN	Seats	Big 3	358	1960
Sanden Int'l. USA	Sanden Corp. of Japan, Dallas, TX	A/C Compressors	Volkswagen	180	1980
Sanoh Ind. =	N/A, Michigan	Surface Treatments	N/A	N/A	1988
Sanyo Machine =	N/A, Michigan	Welding Equip.	N/A	N/A	N/A
Sheller Ryobi *	Ryobi/Sheller Globe, Shelbyville, IA	Transmission Housings	N/A	N/A	N/A
Shiroki/Wickes *	Shiroki/Wickes, Gordonsville, TN	Window Regulators	US/Japan. Mfg.	25	1988
Showa Aluminum #	Showa Aluminum Sterling, MT	Aluminum Heat Exchangers	N/A	200	1987
Showa Mfg. #	N/A, Sunbury, OH	Shock Absorbers	Honda	N/A	1988
Sintering Technologies *	Hitachi Powdered/ Metals/Cummins Engine, Greensburg	Sintered Metal Parts	Cummins/Chrysler	140	1988
Stanley Electric Co.	Stanley Electric Ltd., London, OH	Auto Light	Honda	100	1981
Sterling INOAC *	Inoue MTP/Sterling Sterling, Engrd., Mt. Clemens, MI	Molded Parts	Nissan/Mazda	10	1988
Subaru-Isuzu	Fuji Heavy Industries, Japan, Lafayette, IN	Auto/truck assemb.	N/A	1700	1989
Sumitomo #	Sumitomo Wiring Systems Ltd., Morgantown, KY	Wiring Harnesses	Mazda	50	1987
Sumitomo Heavy Industries	Sumitomo Chesapeake, VA	Drives/ Transmissions	N/A	100	1988
Sumitomo *	Sumitomo Wiring Systems Ltd., Morgantown, KY	Wiring harnesses	Mazda	5087	1987
T.D. Manufacturing	Toyo Denso, Japan, Hills-boro, OH	Electric Auto Parts	N/A	100	1988

(Continued on p.108)

JAPANESE SUPPLIERS

COMPANY	PARENT/LOCATION	PRODUCT	CUSTOMER	EMPLOYEES	STARTUP
TG USA Corporation #	Toyoda Gosei/ Mitsui, Perry-ville, MO	Steering Wheels	Ford/Chrys/ GM/Toyota	30	1987
TRW/Fuji Valve =	Fuji Valve/TRW, N/A	Engine Valves	Honda	N/A	1989
TRW/Koyo Steering Systems =	Koyo Seiko/TRW, N/A	Gears	Japan./Asian Mfg.	N/A	1989
TS Trim Inc. #	Sankei Giken Kogyo Kogyo, Tokyo Seat, Canal Win-chester, OH	Door Sashes/ Pipes	Honda	N/A	1988
Takata-Fisher +	Takata, St. Clair Shores, MI	Assemble Seat Belts	Honda/Nissan	50	1985
Techno Trim Inc. +	Tachi-S Ltd./ Johnson Controls, Stockton, CA	Seat Covers	NUMMI	N/A	1987
TechnoTrim *	Tachi-S Ltd., Johnson Controls, Maysville, KY	Seat Covers	Honda	N/A	1988
Teikuro #	N/A, Springfield, OH	Chrome Plated stamp dies	Honda	N/A	1988
Tenex Ind.	Tsuchiya Mfg., Murfreesboro, TN	Air cleaner/ Elements	Nissan	45	1988
Thermalex Inc. +	Mitsubishi Alum./Thermal Comp., Mont-gomery, AL	Aluminum Extrusion Products	N/A	30	1986
Tokai Corp. #	Tokai Rubber Ind. Ltd., Livonia, MI	Shock Absorbers	Ford	120	1987
Tokai Rika =	N/A, Kentucky	Electrical Equipment	Toyota	N/A	1988
Tokico America Inc. #	Tokico Ltd., Berea, KY	Automotive shocks	Ford	150	1988
Tokico America, Inc.	Ichikoh Ltd., Shelbyville, KY	Automotive Lighting	Nissan	90	1988
Tokico Ltd.	Tokico Ltd., Japan, Japan, Berea, KY	Shock absorbers	Toyota	80	1988
Tomazco Milciber #	Masuda Mfg. Co. Ltd., Columbus, OH	Stamped Parts	Honda	40	1987
Topy Corp.	Topy Industries Ltd., Frankfort, KY	Wheels	Nissan/Honda	94	1986
Toyo Seat #	Toyo Seat, Imlay City, MI	Car Seat Parts	Ford	N/A	N/A
Toyoda Machinery =	N/A	Machine Tools	N/A	N/A	1990
Toyota	Toyota, George-town, KY	Engines/Axles/ Steering Sys.	Toyota	500	1988
Toyota Motor Corp.	Toyota Motor Corp., Japan, Georgetown, KY	Auto assembly	Toyota	270	1988
Toyota Synthetics =	N/A, Missouri	Plastic Parts	Japan./US Mfg.	N/A	1988

(Continued on p.110)

JAPANESE SUPPLIERS

COMPANY	PARENT/LOCATION	PRODUCT	CUSTOMER	EMPLOYEES	STARTUP
Toyota #	Toyota, Georgetown, KY	Engines/Axles/ Steering sys.	Toyota	500	88/89
Tri-Con	Tokyo Seat Co., Cape Birardeau, MO	Seat Covers	Chrysler	275	1983
Tri-Con	Tokyo Seat Co., Columbia, MO	Automotive Seats	Chrysler	130	1983
Tri-Con	Tokyo Seat Co., Lincoln, NE	Motorcycle Seats	Kawasaki/Honda Chrylser	50	1978
Trim Masters *	Arakawa Autobody, Hoover Universal, Lexington	Seat Covers	Toyota	N/A	1988
Trinity Industrial Corp.	Trinity Industrial Corp., Georgetown, KY	Paint	Toyota	40	1986
Trinity Industrial Corp.	Trinity Industries Corp., Japan, Georgetown, KY	Auto spray painting syst., paint	Toyota	15	1987
Trinity Industrial Corp. *	Trinity Industrial Corp., Georgetown, KY	Paint	Toyota	40	1988
Truetec #	Daifuku, Urbana, OH	Painting/Plastics	N/A	N/A	1988
U.G.N. Inc./United Glove Nippon Inc*	Uni-NTS/Globe Ind., Ind., Chicago Hgts., IL	Sound Absorp Mat.	Japan./US Mfg.	45	1987
US Engine Valve *	Niton Valve, Westainster, SC	Engine Valves	Japanese Mfg.	125	1988
United Globe Nippon Co.	Fujiyoshi/Hirotoni/ Nihon/Globe, Chicago Hts. IL	Auto. Sound Controls	Honda/NUMMI/ Toyota/Mazda	80	1987
United L-N *	Libby-Owens Ford/Nippon Sheet Steel, Versaille, KY	Automobile Glass	GM, Japan./US Mfg.	400	1987
Ushio Denki #	Ushio Denki, Newburg, OR	Halogen Lamps	N/A	50	N/A
Usui =	N/A, Michigan	Plastic Fans	N/A	N/A	1990
VDO-Yazaki Corp.	Yazaki Sogyo/VDO Winchester, VA	Instrumentation	GM/Chrysler	350	1987
Viam	JapanVilene/ Dainippon I&C, Santa Fe Springs, CA	Floor Mats	Toyota/Honda/GM/ Chrys/Aftmkt.	120	1984
Vuteq #	Chubu Ind., Georgetown, KY	Automotive windows	Toyota	20	1988
WTN Bower +	NTN/Federal Mogul, Macomh, IL	Bearings/Heavy Duty Veh.	US/Japan. Mfg.	300	1985
Warner-Ishi +	Ishikawajima/ Borg Warner, Shelbyville, IL	Automotive Turbochargers	Ford	N/A	N/A
Warwick Steel Co.	Nissho Iwai, Columbus, OH	Slit Steel/Stights	GM	113	1985

(Continued on p.112)

JAPANESE SUPPLIERS

COMPANY	PARENT/LOCATION	PRODUCT	CUSTOMER	EMPLOYEES	STARTUP
Weastec #	Toyo Denso, Hillsboro, OH	Plastic/Wire parts	Honda	500	1988
Wheeling Nisshin, Inc. *	Nissan Steel, Follansbee, WV	Galv/Alum. Steel	US Mfg.	200	1989
Woodbridge INOAC #	Woodbridge Canada Inoue Bardstown, KY	Instrument panel	Ford/Diamond-Star	119	1988
Wynn-Kiki Inc. +	Diesel-Kiki/Wynn Industries, Fort Worth, TX	A.C. Compress./ Evap.	Honda/Nissan	128	1984
Yamakawa Mfg. Corp.	Yamakawa, Portland, TN	Pressed Parts	Nissan/Japan./ US Mfg.	80	1988
Yuasa General Battery Corp. +	Yuasa Battery/ General Battery, Reading, PA	Motorcycle Batteries	N/A	211	1977
Yuhshin =	N/A, Michigan	Switches/Instmnts./ Steering Locks	Japan. Auto Mfg./US	N/A	1988
Yuma Ind. *	Yushiro/Master Ind., Ind., Shelbyville, IN	Metal Working, Oil/Fluids	Japan./US Mfg.	N/A	1987
Yusa Corp. *	Lord Corp./ Yanashita, Union Twp., OH	Rubber Parts, Radiator Hose	Honda	100	1988

(+) – Joint Ventures with US Partners in Auto Parts Manufacturing Facilities in the United States.
(*) – Pending Joint Ventures in Auto Parts Manufacturing Facilities in the United States.
(=) – Contemplated Auto Parts Manufacturing Facilities.
(#) – Pending Japanese Auto Parts Manufacturing Facilities in the United States.

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AUTOMAKER QUARTERLY REPORT

Big Three gain market share for '88, but Accord outsells Escort.

by Dr. THOMAS O'GRADY

As 1989 begins, we still see no end in sight for incentives which, along with emphasis on performance and quality, helped the Big Three domestics increase their passenger car market share in '88.

GM improved its passenger car selling rate during fourth quarter '88 by two percentage points, thus lowering its total 1988 market share loss to 36.1%, from 36.5% in 1987. Ford's share was up 1.8 points for the quarter and 1.5 points for the year.

Chrysler's fourth quarter car sales were restricted because of some product line changes, but they still gained .5 points of share over the year.

Many small car lines lost sales during fourth quarter 1988, while more compact-sized models climbed the Top 10 chart. Although Ford's Escort remains America's best-seller for '88, the Honda Accord captured the top sales spot during the last quarter.

Dr. Thomas O'Grady heads Integrated Automotive Resources, Inc. in Wayne, PA.

Toyota's Camry is likely to gain more sales now that it's built in Georgetown, KY.

Many of the smaller Japanese companies are struggling with image problems, but even Honda and Toyota declined in share in the fourth quarter. The Japanese plan to improve their position in 1989 with increased North American production, new products and more movement upmarket.

Sales of European cars, which suffered all year from the weak dollar and high prices, did not recover during the fourth quarter. The "other" imports, from Korea and Brazil, increased market share, but we see some early signs of weakness. Many planned introductions from Third World and Eastern Bloc countries were recently canceled because of unexpected cost and labor problems. Also, the Hyundai Excel has disappeared from the US Top 10 list, possibly due to production problems and difficulties in penetrating the compact car markets. AI

WHAT'S HOT! Domestic Auto Sales 4th Quarter 1988

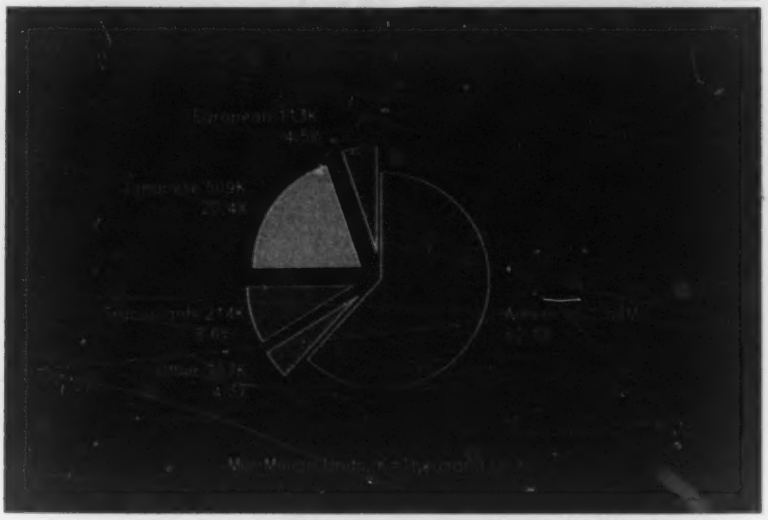
Carline	'88	'87	% Change
Accord	99,147	98,604	0.55%
Escort	93,205	86,720	7.48%
Taurus	87,710	80,410	9.08%
Cavalier	75,852	71,394	6.24%
Corsica/ Beretta	72,874	47,896	52.15%
Camry*	69,088	58,092	18.93%
Tempo	68,445	47,852	43.03
Celebrity	59,911	65,651	(8.74%)
Corolla*	59,541	46,120	29.10%
Grand Am	58,390	48,818	19.61%

* – Includes imports
( ) – Negative value

US Passenger Car Market Shares, 4th Qtr. 1988

Manufacturer	Sales	% Total
General Motors	880,698	35.34%
Ford	538,626	21.61%
Chrysler	272,170	10.92%
Honda/Acura	204,948	8.22%
Toyota	195,805	7.86%
Nissan	105,771	4.24%
Hyundai	55,316	2.22%
Mazda	52,884	2.12%
Subaru	39,529	1.59%
VW/Audi	30,748	1.23%

(Continued p.134)



Passenger Car Market Share By Geographic Base

Fourth Quarter 1988

Manufacturers	Total Sales	Total Market Share
American	1,548,266	62.13%
Japanese	509,143	20.44%
European	113,196	4.54%
US-Built Imports (Honda,NUMMI, Nissan, Mazda)	213,958	8.59%
Other Imports	107,175	4.30%
Total	2,492,028	100.00%

4TH QUARTER 1988 DOMESTIC LIGHT TRUCK PRODUCTION

COMPANY	FULL-SIZE TRUCKS	COMPACT TRUCKS	FULL-SIZE VANS	COMPACT VANS	FULL-SIZE SPORTS UTILITY	COMPACT SPORTS UTILITY	TOTAL 1988	TOTAL 1987
FORD	171,774	67,964	67,720	53,682	18,322	27,856	403,918	403,318
CHEVROLET	148,897*	66,592	32,759	42,280	33,718	46,722	305,489	370,968
CHRYSLER	28,719	28,732	30,026	112,724	6,157	—	197,343	206,358
GMC	50,409*	16,247	11,521	10,857	10,641	13,203	93,492	112,878
JEEP	—	9,698	—	—	4,057	67,763	62,528	81,518
NISSAN	—	24,908	—	—	—	—	35,206	24,908

*Includes Suburban and P-model

Rentals Hurting Con Equipment Makers

by John Stark

Construction machinery rental may be big business to some dealers in the southeastern US and western Canada, but some nameplate manufacturers aren't too thrilled about it.

According to certain vehicle producers, construction rental is poor business strategy. Rental machinery—many of it brand-new from the factories—could devalue the sticker price of new vehicles sitting on dealer lots.

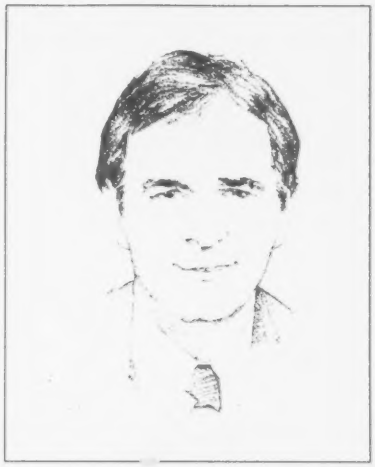
Some construction machinery makers have taken disciplinary action to slow down the explosive growth of rental fleets. But it hasn't slowed.

Contractors continue to opt for rentals at a fast clip to hedge against rising interest rates and uncertain near-term business conditions.

"Since 1985, the number of units in the rental fleets of (construction machinery) dealerships, as well as the value of the equipment, have increased dramatically," says Lawrence J. Pelka, executive VP of Associates Commercial Corp., the largest financier of construction and mining machinery acquisition in the US.

A survey of nearly 200 managers of US construction machinery dealerships by Associates Commercial, a commercial finance unit of Associates Corp. of North America, reveals several key developments since 1985:

- A rise in contribution of new machinery sales to dealership revenue;
- A slip in contribution of new machinery sales to overall dealership profitability;
- An increase in contribution of aftermarket business to dealership profitability;
- A sharp advance in the actual number of construction machines stocked in dealership rental fleets.



John Stark is editor and publisher of Stark's Off-Highway Ledger.

In other words, unit sales rebounded during the past three years, but profit margins narrowed as dealers cut prices on new vehicles to close deals. Part of the last margins were apparently recouped *via* expanded aftermarket activity and greater reliance on rental equipment revenue.

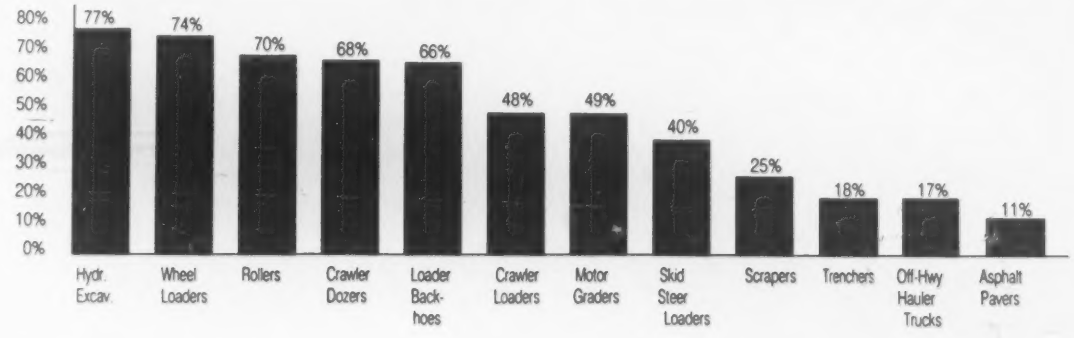
"The average equipment dealer rental fleet now has 213 pieces of equipment in service, up 22% from 174 pieces that dealers averaged in 1985," Pelka says. "Only 10% of all distributors have no rental equipment, down from 14% [in 1985]."

The level of utilization among construction equipment distributorship rental fleets is much lower than in related markets such as trucking, which often runs to 90% leasing, adds Pelka. Construction machinery rental activity was highest in the southeastern US at 69% and lowest in the Midwest at 50%. According to Associates Commercial, 38% of the average dealer revenues resulted from new machinery sales (up just 2% from 1985). Aftermarket activity generated 26% of revenue. Used equipment sales and rentals stood at 18% and 16%, respectively.

Construction machinery industry insiders believe the discrepancy of a nominal 2% advance in revenue *via* sales of new machines, compared to as much as a 19% gain in US retail unit turnover last year, is a sure sign that dealers continue to place factory-ordered vehicles into their own rental fleets and turn the machines over to renters at discount prices.

Far too many construction equipment distributors have not set up policies and procedures to effectively manage rentals. But equipment manufacturers remain concerned about nameplate devaluation and its impact on competitive pricing.■

TYPE OF EQUIPMENT IN RENTAL FLEET (1988)



Source: Associates Commercial Corp.